

FEB 25 2003

PTC/SB/08A (08-03)

Approved for use through 07/31/2008. OMB 0651-0031  
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute Form 1449/PTO

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet

1

of

3

**Complete if Known**

Application Number	10/706,263
Filing Date	11/12/2003
First Named Inventor	John S. Laudo
Art Unit	2874
Examiner Name	J. Doan
Attorney Docket Number	BAT 0064 PA/40078.252

## U. S. PATENT DOCUMENTS

U. S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. <sup>1</sup>	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code <sup>2 (if known)</sup>			
JD		US 6,339,662 B1	01-15-2002	Koteles et al.	T
		US 6,330,090 B1	12-11-2001	Martin et al.	
		US 6,239,891 B1	05-29-2001	Nakama	
		US 6,137,933	10-24-2000	Hunter et al.	
		US 6,094,284	07-25-2000	Huber	
		US 6,049,418	04-11-2000	Srivastava et al.	
		US 6,049,417	04-11-2000	Srivastava et al.	
		US 6,307,668 B1	10-23-2001	Bastien et al.	
		US 6,122,095	09-19-2000	Fatehi	
		US 6,111,674	08-29-2000	Bhagavatula	
		US 6,108,471	08-22-2000	Zhang et al.	
		US 5,933,271	08-03-1999	Waarts et al.	
		US 5,808,763	09-15-1998	Duck et al.	
		US 5,799,118	08-25-1998	Ogusu et al.	
		US 5,355,237	10-11-1994	Lang et al.	
		US 5,228,103	07-13-1993	Chen et al.	
		US 5,206,920	04-27-1993	Cremer et al.	
		US 5,107,359	04-21-1992	Ohuchida	
		US 4,773,063	09-20-1998	Hunsperger et al	✓

## FOREIGN PATENT DOCUMENTS

[illegible]

**Examiner  
Signature**

Tennille Poan

Date	Considered
------	------------

9/8/05

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.18 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

**If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.**

**FEB 25 2004**

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Use for form 1449/PTO

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet	2	of	3
-------	---	----	---

PTO/SB/08A (08-03)

Approved for use through 07/31/2008. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

**Complete if Known**

Application Number	10/706,263
Filing Date	11/12/2003
First Named Inventor	John S. Laudo
Art Unit	2874
Examiner Name	J. Doan
Attorney Docket Number	BAT 0064 PA/40078.252

## U. S. PATENT DOCUMENTS

[illegible]

## FOREIGN PATENT DOCUMENTS

[illegible]

**Examiner  
Signature**

Jennide Doan

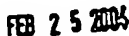
Date Considered

9/8/05

**\*EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup>Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup>For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup>Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup>Applicant is to place a check mark here if English language translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

**If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.**



Approved for use through 07/31/2008. OMB 0651-0031

U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO

***(Use as many sheets as necessary)***

**Complete If Known**

Application Number

**10/706,263**

**Filing Date**

11/12/2003

**First Named Inventor**

John S. Laudo

**Art Unit**

2874

**Examiner Name**

J. Doan

Attorney Docket Number

BAT 0064 PA/40078.252

[illegible]

Examiner Signature	Jennifer Doan	Date Considered	9/8/05
-----------------------	---------------	--------------------	--------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

**If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.**

PTO/SB/08A (08-03)

Approved for use through 07/31/2008. OMB 0651-0031  
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/2000

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

**Complete if Known**

Application Number	10/706,263
Filing Date	November 12, 2003
First Named Inventor	John S. Laudo
Art Unit	2874
Examiner Name	J. Doan
Attorney Docket Number	BAT 0064 PAI/40078.252

Sheet	1	of	2
-------	---	----	---

## U. S. PATENT DOCUMENTS

[illegible]

**FOREIGN PATENT DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	†
		Country Code <sup>2</sup> Number <sup>4</sup> Kind Code <sup>3</sup> (if known)				
JD		DE 42 05 750 A	8-26-1993	Siemens AG		
JD		WO 02 37151 A	5-10-2002	Glas et al		
JD		GB 2 027 546 A	2-20-1980	Standard Telephones		

**Examiner**

Tennady Doan

Date \_\_\_\_\_

**Considered**

9/8/05

**EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. **DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

**If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.**



PTO/SB/088 (08-03)

Approved for use through 07/31/2008. OMB 0651-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

<b>Substitute for form 1449/PTO</b>  <b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (Use as many sheets as necessary)		<b>Complete if Known</b>			
		Application Number	10/706,263		
		Filing Date	November 12, 2003		
		First Named Inventor	John S. Laudo		
		Art Unit	2874		
		Examiner Name	J. Doan		
Sheet	2	of	2	Attorney Docket Number	BAT 0064 PA/40078.252

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
JD		POGUNTKE, K.R. ET AL: "Design of a Multistripe Array Grating Integrated Cavity (Magic) Laser" JOURNAL OF LIGHTWAVE TECHNOLOGY, IEEE, New York, U.S. Vol. 11, No. 12, 1 December 1993, pgs. 2191-2200.	
JD		ASGHARI, M. ET AL: "Demonstration of an Integrated Multichannel Grating Cavity Laser for WDM Applications", ELECTRONICS LETTERS, IEE STEVENAGE, GB, Vol. 30, No. 20, 29 September 1994, pgs. 1674-1675.	
JD		POLMAN, A.: "Exciting Erbium-doped Planar Optical Amplifier Materials", THIN FILMS FOR OPTICAL WAVEGUIDE DEVICES AND MATERIALS FOR OPTICAL LIMITING SYMPOSIA (MATERIALS RESEARCH SOCIETY SYMPOSIUM PROC. VOL. 597), Boston, MA., pgs. 3-14.	
JD		ISHII, H. ET AL: "Zero Insertion Loss Operations in Monolithically Integrated WDM Channel Selectors", IEEE PHOTONICS TECHNOLOGY LETTERS, IEEE Inc., New York, U.S., Vol. 11, No. 2, February 1999, pgs. 242-244.	
JD		PARRIAUX, O. ET AL: "Normalized Analysis for the Sensitivity Optimization of Integrated Optical Evanescent-Wave Sensors", JOURNAL OF LIGHTWAVE TECHNOLOGY, IEEE, New York, U.S., Vol. 16, No. 4, 1 April 1998, pgs. 573-582.	
JD		WIKI, M. ET AL: "Novel Integrated Optical Sensor Based on a Grating Coupler Triplet", BIOSENSORS & BIOELECTRONICS, 15 November 1998, Elsevier, U.K., Vol. 13, No. 11, pgs. 1181-1185.	
JD		COTTIER, K. ET AL: "Thickness-modulated Waveguides for Integrated Optical Sensing", OPTICAL FIBERS AND SENSORS FOR MEDICAL APPLICATIONS II, San Jose, CA, USA, 22-23 January 2002, Vol. 4616, pgs. 53-63.	

Examiner Signature	Jennifer Doan	Date Considered	9/8/05
--------------------	---------------	-----------------	--------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-766-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary.)

## Sheet

1

1

2

Application Number

10708.263

### Filing Data

November 12, 2003

**First Named Inventor**

**John S. Laudo**

### Art Unit

2874

**Examiner Name**

J. Doan

Attorney Docket Number

BAT 0064 PA/40078.252

[illegible]

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. <sup>1</sup>	Foreign Patent Document	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages Or Relevant Figures Appear	1*
		Country Code* Number * Kind Code* (if known)	MM-DD-YYYY			
JD		DE 42 05 750 A	8-26-1993	Siemens AG		
JD		WO 02 37151 A	5-10-2002	Glas et al		
JD		GB 2 027 546 A	2-20-1980	Standard Telephones		

Examiner Signature	Jennifer Doan	Date Considered	9/8/05
-----------------------	---------------	--------------------	--------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. \*Applicant's unique citation designation number (optional). \*See Kinda Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 801.04. \*Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). \*For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. \*Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. \*Applicant is to place a check mark here if English language translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

**If you need assistance in completing the form, call 1-800-PTO-9189 (1-800-786-9199) and select option 2.**



PTO/SB/08B (08-03)  
Approved for use through 07/31/2008. OMB 0651-0031  
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE  
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449PTO

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet

2

of

2

### Complete if Known

Application Number	10/706,263
Filing Date	November 12, 2003
First Named Inventor	John S. Laudo
Art Unit	2874
Examiner Name	J. Doan
Attorney Docket Number	BAT 0064 PA/40078.252

### NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
JD		POGUNTKE, K.R. ET AL: "Design of a Multistripe Array Grating Integrated Cavity (Magic) Laser" JOURNAL OF LIGHTWAVE TECHNOLOGY, IEEE, New York, U.S. Vol. 11, No. 12, 1 December 1993, pgs. 2191-2200.	
JD		ASGHARI, M. ET AL: "Demonstration of an Integrated Multichannel Grating Cavity Laser for WDM Applications", ELECTRONICS LETTERS, IEE STEVENAGE, GB, Vol. 30, No. 20, 29 September 1994, pgs. 1674-1675.	
JD		POLMAN, A: "Exciting Erbium-doped Planar Optical Amplifier Materials", THIN FILMS FOR OPTICAL WAVEGUIDE DEVICES AND MATERIALS FOR OPTICAL LIMITING SYMPOSIA (MATERIALS RESEARCH SOCIETY SYMPOSIUM PROC. VOL. 597), Boston, MA., pgs. 3-14, 2000	
JD		ISHII, H. ET AL: "Zero Insertion Loss Operations in Monolithically Integrated WDM Channel Selectors", IEEE PHOTONICS TECHNOLOGY LETTERS, IEEE Inc., New York, U.S., Vol. 11, No. 2, February 1999, pgs: 242-244.	
JD		PARRIAUX, O. ET AL: "Normalized Analysis for the Sensitivity Optimization of Integrated Optical Evanescent-Wave Sensors", JOURNAL OF LIGHTWAVE TECHNOLOGY, IEEE, New York, U.S., Vol. 16, No. 4, 1 April 1998, pgs. 573-582.	
JD		WIKI, M. ET AL: "Novel Integrated Optical Sensor Based on a Grating Coupler Triplet", BIOSENSORS & BIOELECTRONICS, 15 November 1998, Elsevier, U.K., Vol. 13, No. 11, pgs. 1181-1185.	
JD		COTTIER, K. ET AL: "Thickness-modulated Waveguides for Integrated Optical Sensing", OPTICAL FIBERS AND SENSORS FOR MEDICAL APPLICATIONS II, San Jose, CA, USA, 22-23 January 2002, Vol. 4816, pgs. 53-63.	

Examiner Signature	Jennifer Doan	Date Considered	9/8/05
--------------------	---------------	-----------------	--------

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.